

3184 RF 92 States Government

Department of Energy

DATE 7-17-92 Memorandum

JUN 17 9 46 AM '92 Rocky Flats Office

ACTION Ferrera
DIST LTR ENC

JUN 16 1991


WMED:SD:5873

Risk Assessment for Plutonium in the Ducts

James O. Zane
General Manager
EG&G Rocky Flats, Inc.EG&G
ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

In a letter to you dated February 26, 1992, the U.S. Environmental Protection Agency (EPA) requested that EG&G revise a previously-submitted risk assessment for residual plutonium in the ductwork of buildings at the Rocky Flats Plant (RFP). EG&G and Rocky Flats Office (RFO) staff met with the EPA on May 14, 1992, to clarify several technical issues related to EPA's request. As a result of this meeting, EG&G and the Rocky Flats Office agreed to revise the risk assessment by performing three additional air dispersion modeling runs using a plutonium release source term to be developed by EG&G. I have attached a summary of the commitments EG&G and RFO made to EPA at the meeting as well as an informal schedule for completing specific activities. I request that EG&G revise the risk assessment as described in the attachment.

The EPA will review the risk assessment report to determine if it is concerned with plutonium in the ducts with respect to the Interagency Agreement and the Comprehensive Environmental Restoration, Compensation, and Liability Act. If EPA staff have significant concerns about the risk of residual plutonium in the ductwork, they will meet with RFP staff to discuss their concerns before transmitting them in writing. If EPA staff are satisfied that no significant risk is posed to the public by the plutonium in the ductwork, they will inform RFP of this conclusion in writing.


Terry A. Vaeth
RFP ManagerDOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

Attachment

cc w/ Attachment:

D. Hauser, CSD, RFO
T. Lukow, WMED, RFO
G. Setlock, AQCTD, EG&G
D. Swanson, SARAD, EG&G
A. Duran, EPA (8HWM-FF)
P. Ornstein, EPA (8RC)G. Nishimoto, OSB, RFO
D. Hicks, OSB, RFO
P. Bakke, OSB, RFO
D. Ruscitto, OD, RFOReviewed for Addressee
Corres. Control-RFP

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REVISED RISK ASSESSMENT FOR RESIDUAL PLUTONIUM IN DUCTS

ACTIONS

1. EG&G will run the MACCS dispersion model three times as follows:
 - Wind towards sector with greatest population, assuming "worst case" meteorological conditions ("F" stability, wind speed 1 meter/second).
 - Wind towards sector with greatest population using worst actual meteorological conditions from last 2 years of data.
 - Wind in most frequent direction under most common meteorological conditions.
2. For each of the three modeling runs identified above, the following will be produced:
 - population in affected sector and number of latent cancer fatalities expected.
 - dose in rem to maximally-exposed offsite individual.

ASSUMPTIONS

1. Model dispersion of plutonium released from all ducts in the one building with highest number of contaminated sections (building 771).
2. Assume 400 grams of Pu remaining per duct section.
3. A Boeing 747 crashes into the building.
4. The release fraction and rationale will be developed by EG&G and presented in the risk assessment report.

DELIVERABLES SCHEDULE

1. RFP will submit a proposed methodology to EPA for concurrence by May 29, 1992.
2. EPA will concur or request re negotiation within one week of receiving methodology.
3. Draft report of risk assessment due to EPA by June 30, 1992.
(This means that EG&G must submit the report to DOE/RFO by June 23, 1992)
4. EPA will submit written comments on the draft report within 2 weeks of receipt.
5. EPA, EG&G, and RFO will agree on due date for final report after EPA submits written comments.